

COMPLETE PENDING CLAIM SET

135. (Three Times Amended) A process for identifying a compound that modulates human ABC1 (ABC1) polypeptide biological activity comprising contacting a compound with a human ABC1 polypeptide that has ABC1 biological activity and in the presence of adenosine triphosphate (ATP) under conditions promoting the biological activity of said ABC1 polypeptide and detecting a difference in said biological activity following said contacting relative to when said compound is not present

wherein said biological activity is binding or hydrolysis of adenosine triphosphate (ATP) and wherein said human ABC1 (hABC1) comprises amino acids 1-60 of SEQ ID NO: 1,

thereby identifying an ABC1 modulating agent.

136. (Amended) The process of claim 135 wherein said difference in biological activity is an increase in biological activity.

142. (Amended) The process of claim 135 wherein said human ABC1 (hABC1) comprises the amino acid sequence of SEQ ID NO: 1.

143. (Three Times Amended) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a membrane comprising a mammalian ABC1 polypeptide having an amino acid sequence with at least 85% identity to the amino acid sequence of SEQ ID NO: 1 and having lipid transporting activity, in the presence of a lipid under conditions promoting transport of said lipid across said membrane, wherein said lipid is phospholipid or cholesterol, and detecting a difference in said transport following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

144. (Amended) The process of claim 143 further comprising contact with an acceptor that accepts the transported lipid, said acceptor being a member selected from the group consisting of phospholipid, high density lipoprotein (HDL), Apolipoprotein (Apo) AI, ApoAI and ApoE.

145. (Amended) The process of claim 143 wherein said compound is useful in treating coronary artery disease (CAD).

147. The process of claim 144 wherein said acceptor is a phospholipid.

148. The process of claim 143 wherein said membrane is part of an intact cell.

149. (Amended) The process of claim 148 wherein said cell is a fibroblast or a macrophage.

150. The process of claim 148 wherein said cell is a macrophage.

151. The process of claim 148 wherein said cell is a recombinant cell.

156. The process of claim 143 wherein said transport is cholesterol efflux.

157. The process of claim 143 wherein said mammalian ABC1 is mouse ABC1.

158. (Amended) The process of claim 143 wherein said mammalian ABC1 is human ABC1.

159. (Amended) The process of claim 158 wherein said human ABC1 comprises amino acid residues 1-60 of SEQ ID NO: 1.

160. (Amended) The process of claim 158 wherein said human ABC1 comprises the amino acid sequence of SEQ ID NO: 1.

161. (Three Times Amended) A process for identifying a compound that modulates human ABC1 polypeptide biological activity and is useful in modulating plasma cholesterol levels in a mammal comprising contacting a compound with a membrane comprising a human ABC1 polypeptide, wherein said polypeptide comprises amino acid residues 1-60 of SEQ ID NO: 1, and a source of one or more anions under conditions promoting transport of said one or more anions across said membrane and detecting a difference in said transport following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

162. (Amended) The process of claim 161 wherein said difference in anion transport is an increase in said transport.

163. (Amended) The process of claim 161 wherein when said one or more anions comprises at least two different anions.

165. (Twice Amended) The process of claim 161 wherein said human ABC1 comprises the amino acid sequence of SEQ ID NO: 1.

166. (Three Times Amended) A process for identifying a compound that modulates human ABC1 polypeptide biological activity for use in treating CAD comprising contacting a compound with a membrane comprising a human ABC1 polypeptide and interleukin-1 under conditions promoting transport of said interleukin-1 across said membrane and detecting a difference in said transport following said contacting relative to when said compound is not present and wherein said human ABC1 comprises amino acids 1-60 of SEQ ID NO: 1, thereby identifying a mammalian ABC1 modulating agent useful for treating CAD.

168. (Amended) The process of claim 166 wherein said human ABC1 comprises the amino acid sequence of SEQ ID NO: 1.

169. (Twice Amended) A process for identifying a compound that modulates human ABC1 protein biological activity and is useful in modulating human plasma cholesterol levels comprising contacting a compound with a human ABC1 protein that has ABC1 biological activity and in the presence of a protein that binds to said human ABC1 protein under conditions promoting binding of said protein to said ABC1 polypeptide, wherein said human ABC1 protein comprises amino acids 1-60 of SEQ ID NO: 1, and detecting a difference in said binding following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

172. (Twice Amended) The process of claim 169 wherein said ABC1 polypeptide is present in the membrane of an intact cell.

173. (Amended) The process of claim 172 wherein said cell is a recombinant cell.

174. (Amended) The process of claim 161 wherein said membrane is part of an intact cell.

175. (Amended) The process of claim 166 wherein said membrane is part of an intact cell.

176. (Twice Amended) A process for identifying a compound that modulates mutant human ABC1 (hABC1) polypeptide biological activity comprising contacting a compound with a mutant hABC1 polypeptide having ABC1 polypeptide biological activity, comprising from 1 to 5 amino acid differences relative to the sequence of SEQ ID NO: 1, and a member selected from the group consisting of a lipid, a protein, ATP, and interleukin-1, and detecting a difference in said biological activity following said

contacting relative to when said compound is not present thereby identifying a mutant hABC1 modulating agent.

178. The process of claim 176 wherein said mutant hABC1 polypeptide comprises a single amino acid difference relative to the sequence of SEQ ID NO: 1.

179. (Twice Amended) The process of claim 178 wherein said hABC1 comprises a detectable label.

180. The process of claim 179 wherein said label is a fluorescent label.

181. (Twice Amended) The process of claim 143 wherein said ABC1 polypeptide is a recombinant polypeptide.

213. (Twice Amended) A process for identifying a compound that modulates lipid transport across a mammalian cell that includes a cell membrane that includes ABC1 polypeptide comprising an amino acid sequence with least 85% identity to the amino acid sequence of SEQ ID NO: 1 and having lipid transporting activity, comprising testing said mammalian cell wherein said cell includes a lipid selected from the group consisting of phospholipid and cholesterol, under conditions promoting transport of said lipid across said membrane, and comparing transport of said lipid in the presence and absence of a test compound whereby a difference in said transport indicates modulation, thereby identifying said compound as a modulator of lipid transport.

214. The process of claim 213 wherein said modulation is an increase in lipid transport.

215. The process of claim 213 wherein said modulation is a decrease in lipid transport.

216. The process of claim 213 wherein said mammalian cell is a fibroblast.

217. The process of claim 213 wherein said mammalian cell is a mouse cell.

218 The process of claim 213 wherein said mammalian cell is a human cell.

219. The process of claim 213 wherein said lipid is phospholipid.

220. The process of claim 213 wherein said lipid is cholesterol.

221. The process of claim 213 further comprising the presence of an acceptor that accepts the transported lipid, said acceptor being a member selected from the group consisting of phospholipid, high density lipoprotein (HDL), Apolipoprotein (Apo) AI, ApoAI and ApoE.

222. The process of claim 221 wherein said acceptor is HDL.

223. The process of claim 213 wherein said mammalian cell is a recombinant cell.

224. The process of claim 143 wherein said modulation is an increase in transport.

225. The process of claim 143 wherein said modulation is a decrease in transport.

226. The process of claim 143 wherein said percent identity is at least 90% identity.

227. The process of claim 143 wherein said percent identity is at least 95% identity.

228. The process of claim 143 wherein said ABC1 polypeptide comprises the amino acid sequence of SEQ ID NO: 1.

229. The process of claim 213 wherein said percent identity is at least 90% identity.

230. The process of claim 213 wherein said percent identity is at least 95% identity.

231. The process of claim 213 wherein said ABC1 polypeptide comprises the amino acid sequence of SEQ ID NO: 1.